

Notice of Allowability

Application No.

09/680,258

Examiner

Dmitry Levitan

Applicant(s)

KOKUDO, JUNICHI

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/31/05.
2. ☒ The allowed claim(s) is/are 3, 8, 14, 17, 19-23 and 29 renumbered 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



ANH NGUYEN
PRIMARY EXAMINER

Art Unit: 2662

Amendment, filed 10/31/05, has been entered. Claims 3, 8, 14, 17, 19-23 and 29 have been allowed.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Andrew Taska on 11/09/05.

The application has been amended as follows:

Claims 1-33 have been amended per Attachment A.

Note. Claims 1-33 have been amended to avoid reading on Ichikawa (US 6,307,837).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Levitan
Patent Examiner.
11/22/05



HANH NGUYEN
PRIMARY EXAMINER

Attachment A.

LISTING OF CLAIMS:

1. - 2. (canceled).

3. (currently amended): An authentication method for a wireless LAN (local area network) system ~~in accordance with claim 1,~~ comprising:

transmitting an authentication request from a STA (terminal station) to an AP (access point), wherein said authentication request comprises a request from said STA to connect with said LAN;

requesting authentication of said authentication request from said AP to an authentication server, by converting said authentication request to a protocol adaptable to said authentication server;

if no problem occurs at hardware or software of said authentication server, checking said authentication request at said authentication server based on a MAC (media access control) address of said STA;

executing encryption authentication at said AP with said STA based on a designated encryption algorithm; and

Page 5

~~Informal Submission for Discussion Purposes Only~~ Attorney Docket No.: Q61120
~~U.S. Serial No. 09/680,258~~

if no problem occurs at hardware or software of said authentication server, notifying an authentication completion from said authentication server to said AP, after said authentication server received a response of a completion of said encryption authentication from said AP,

wherein said AP stores said MAC address of said STA, and

wherein, when a problem occurs in hardware or software of said authentication server said AP itself executes authentication of said STA based on said MAC address of said STA.

4. - 7. (canceled).

8. (currently amended): An authentication apparatus for a wireless LAN system—~~a~~
~~accordance with claim 6, An authentication apparatus for a wireless LAN system, comprising,~~
plural STAs;

plural APs which connect to an authentication server and said plural STAs, and one of said plural APs receives an authentication request from one of said plural STAs and converts said authentication request from one of said plural STAs to a protocol adaptable to said authentication server, and authenticates said authentication request from one of said plural STAs based on a designated encryption algorithm; and

said authentication server which, if no problem occurs at hardware or software of said authentication server, checks said authentication request from one of said STAs based on a MAC address of one of said plural STAs by receiving said converted authentication request, and

Page 6

~~Informal Submission for Discussion Purposes Only~~ Attorney Docket No.: Q61120
~~U.S. Serial No. 09/680,258~~

notifies an authentication completion to said AP, after said authentication server received a response of a completion of encryption authentication from said AP;

wherein said authentication request comprises a request from one of said plural STAs to connect with said LAN,

wherein said AP stores a MAC address of said one of said STAs, and

wherein in case that a problem occurs at hardware or software of said authentication server, said AP itself executes authentication of said one of said STAs based on said MAC address of said one of said STAs.

9. - 13. (canceled).

14. (previously presented): An access point apparatus comprising:

a first authentication part which executes an encrypted authentication of a terminal; and

a second authentication part which executes a MAC address authentication of said terminal, using information about a MAC address, which is possessed by an authentication server,

wherein said access point stores a MAC address of said terminal, and

wherein when a failure occurs at hardware or software of said authentication server, said access point apparatus itself executes authentication of said terminal based on a MAC address of said terminal.

Page 7

~~Informal Submission for Discussion Purposes Only~~ ~~Attorney Docket No.: Q61120~~
~~U.S. Serial No. 09/680,258~~

15. - 16. (canceled).

17. (previously presented): An access point apparatus comprising:
an authentication part which executes an encrypted authentication of a terminal;
a communication part which queries an authentication server about a MAC address of
said terminal;
a connection control part which allows said terminal to connect with a network when a
MAC address of said authentication server coincides with that of said terminal,
wherein said access point stores said MAC address of said terminal, and
wherein when a failure occurs at hardware or software of said authentication server, said
access point apparatus itself executes authentication of said terminal based on said MAC address
of said terminal.

18. (canceled).

19. (previously presented): An access point apparatus comprising:
a first authentication part which performs an encrypted authentication of a terminal using
a WEP algorithm;
a second authentication part which performs a MAC address authentication of said
terminal; and
a storing part which stores a MAC address of said terminal,

Page 8

~~Informal Submission for Discussion Purposes Only~~ Attorney Docket No.: Q61120
~~U.S. Serial No. 09/680,258~~

wherein when a connection request is issued from said terminal, said first authentication part and said second authentication part perform authentications, and said second authentication part also uses MAC address stored in an authentication server, and

wherein, when a failure occurs at hardware or software of said authentication server, said access point apparatus itself executes authentication of said terminal based on said MAC address of said terminal.

20. (previously presented): An access point apparatus in a wireless LAN system comprising:

a first authentication part which executes at least one of an encrypted authentication and an open system authentication of a terminal; and

a second authentication part which executes an authentication of said terminal using information of a MAC address of said terminal,

wherein said second authentication part also uses MAC address stored in an authentication server, which manages MAC addresses of terminals placed in one wireless LAN system, in executing an authentication of said terminal, and

wherein, when a failure occurs at hardware or software of said authentication server, said access point apparatus itself executes authentication of said terminal based on said MAC address of said terminal.

Page 9

~~Informal Submission for Discussion Purposes Only~~ ~~Attorney Docket No.: Q61120~~
~~U.S. Serial No. 09/680,258~~

21. (previously presented): A wireless LAN system comprising
a terminal
an access point apparatus; and
an authentication server,
wherein said terminal comprises a communication part which wirelessly communicates
with said authentication server,
wherein said access point apparatus comprises a first authentication part which executes
an encrypted authentication of said terminal and a second authentication part which executes a
MAC address authentication of said terminal, and
wherein said authentication server comprises a storing part which stores a MAC address
of said terminal and a responding part which responds to an inquiry of said access point
apparatus about a MAC address, and
wherein, when a failure occurs at hardware or software of said authentication server, said
access point apparatus itself executes authentication of said terminal based on said MAC address
of said terminal.

22. (previously presented): A wireless LAN system comprising
a terminal;
an access point apparatus; and
an authentication server,

Page 10

~~Informal Submission for Discussion Purposes Only~~ ~~Attorney Docket No.: Q61120~~
~~U.S. Serial No. 09/680,258~~

wherein said terminal comprises a communication part which wirelessly communicates with said access point apparatus,

wherein said access point apparatus performs an encrypted authentication of said terminal and performs a MAC address authentication of said terminal,

wherein said authentication server stores a MAC address of said terminal and supports the MAC address authentication with the stored MAC address, and

wherein, when a failure occurs at hardware or software of said authentication server, said access point apparatus itself executes authentication of said terminal based on said MAC address of said terminal.

23. (previously presented): A wireless LAN system comprising:

a terminal;

an access point apparatus; and

an authentication server,

wherein said terminal comprises a communication part which wirelessly communicates with said access point apparatus,

wherein said access point apparatus comprises an authentication part which performs a MAC authentication of said terminal,

wherein said authentication server, which is placed in one wireless LAN system, comprises a storing part which stores a MAC address of said terminal and a responding part which responds to an inquiry from said access point apparatus about MAC address, and

Page 11

~~Informal Submission for Discussion Purposes Only~~ ~~Attorney Docket No.: Q61120~~
~~U.S. Serial No. 09/680,258~~

wherein, when a failure occurs at hardware or software of said authentication server, said access point apparatus itself executes authentication of said terminal based on said MAC address of said terminal.

24. - 28. (canceled).

29. (previously presented): A method for authenticating a terminal in a wireless LAN system comprising:

performing, by an access point apparatus, an encrypted authentication of a terminal when an authentication request is issued from said terminal;

performing a MAC address authentication of said terminal with the MAC address information that an authentication server manages;

storing a MAC address of said terminal in said access point apparatus; and

when a failure occurs at hardware or software of said authentication server, executing authentication of said terminal based on said MAC address of said terminal by access point apparatus itself.

30. - 33. (canceled).